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SPENSOL B	55.5	26.0	18.5	40.8	9.71	31.10
SPENSOL C	66.8	16.6	16.6	37.0	11.69	25.34

MANUFACTURERS OF HI-NITROGEN AGRICULTURAL PRODUCTS

The american FERTILIZER

Vol. 109

JULY 24, 1948

No. 2

Some Present Economic Considerations*

By Hon. A. L. M. WIGGINS

Under-Secretary of the Treasury, Washington, D.C.

In THESE days of economic and political unsettlement abroad, when the continuing shortage of food has delayed the return to a stable world economy, the fertilizer industry occupies a key position in world reconstruction. The European Recovery Program recognizes the fact that adequate food for the workers abroad is necessary before production can be fully restored. Under this program, expenditures for food will be greater than for any other group of items to be furnished by the United States during the first year.

An ample supply of food in every country will do more than any other one thing to insulate nations against communist encroachment. The fertilizer industry thus plays an important role in the present international picture.

In the old days people used to speak of "beating swords into plowshares." Now, we restore farm production after a war by converting our munitions plants into fertilizer factories. I was interested to learn that the three reconverted Army plants are expected this year to produce a quarter of a million tons of nitrogen, about one-fifth of our total production, to be shipped abroad for use in restoring soil productivity in the occupied countries.

I have been amazed at the remarkable increase in use of fertilizer in the United States

during and since the war. The 15 million-ton consumption in 1947 was more than double the 1935–39 prewar average. This huge increase in fertilizer use—for which we must give much credit to the valuable educational work of The National Fertilizer Association—has been a major factor in achieving our wartime miracle of food production, which was accomplished in the face of serious shortages of farm labor and machinery. The ability of the United States to produce food in previously unheard-of quantities has helped carry the world over a critical period of food deficiencies.

Low Fertilizer Prices

In view of the great increase in demand for fertilizers, it is gratifying to know that fertilizer prices have been held down remarkably well, even during recent fertilizer shortages. In contract to the rise of 98 per cent in wholesale prices of all manufactured products since 1939, prices of mixed fertilizers have risen only 41 per cent. During the period since VJ-Day, when many prices were boosted to exorbitant levels-when the average price of manufactured goods rose 56 per cent-fertilizer prices have increased only 19 per cent. The fertilizer industry, during a critical inflationary period, has set an example of conservative pricing that might well be followed by other industries.

Wholesale prices of farm products have gone up 196 per cent since 1939, as compared with the 41 per cent rise in fertilizer prices.

^{*} Presented at the 23rd Annual Convention, The National Fertilizer Association, White Sulphur Springs, W. Va., June 21–23, 1948.

I have no doubt whatever that the moderate price of fertilizers, in comparison with the value of the crops they produce, has been a powerful factor in stimulating fertilizer sales throughout the country. The Middle West, for example, used to be an almost untapped market. Before the war, the entire 23 States of the North Central region and the Mountain and Pacific regions used only as much fertilizer as North Carolina alone. Last year they bought four times as much as prewar, and would doubtless have used more if supplies had been available. This expansion westward has reduced the proportion consumed by the six big Southeastern States to 40 per cent last year, as compared with over 50 per cent before the war.

The wider education of farmers in the use of fertilizers has helped to build up an agricultural industry in this country capable of meeting any national emergency, as World War II demonstrated. In a broader sense, it is part of the movement in agriculture to cut production costs—to use improved farming methods, better varieties of crops, and modern labor-saving machinery. Its net effect is to reduce food costs, and thus to aid in further raising the standard of living in the United States. By making our land yield more abundantly, we are providing for the food needs of a constantly rising population in future years.

Will Demand for Fertilizers Hold Up?

To many of you, the 64-dollar question now is: "How long will the present demand for fertilizers hold up?" You have doubtless seen various forecasts over the past several years, indicating the possibility of a break in agricultural prices somewhat like that of 1920. I do not pretend that I can answer this question, but I know that the situation now is very different from that after the first World War. I should like to point out some of these differences that may have a bearing on the demand for fertilizers.

Figures from the Department of Agriculture show that in past years there has been a close relationship between farmers' expenditures for fertilizer and farmers' cash income in the previous year. So far, the outlook for farm income in 1948 has been very good. According to the estimate of the Department of Agriculture, farm income for the first half of this year will average about 3 per cent higher than in the same period of 1947. Since another year of heavy production appears in prospect, the farm income for the year will depend largely on the trend of demand for farm prod-

ucts over the next six months, which will affect the prices farmers will receive.

Situation Now vs. Post World War I

I cannot accept the conclusion that a sharp and severe decline in prices is necessarily inevitable in this postwar period because one occurred after World War I. There are too many points of difference between the two postwar situations.

Overshadowing all economic considerations at present, of course, is the tense international political situation, which had no counterpart after the first World War. The drive of the Soviet government for world domination, and the uncertainty as to where it will eventually lead, represent the great unknowns today in the domestic business situation. Our necessity, in self-defense, to keep the United States in a high state of military preparedness for an indefinite period must be taken into consideration in making any comparison of present conditions with those of 1920.

The Role of Government

The expanded role of Government in out economy is an important underlying factor in comparing the situation today with that in 1920. Total expenditures of the Federal Government in the last calendar year were equal to 18 per cent of the total national product; as compared with 6 per cent in 1920. Part of the high present figure, of course, reflects the cost of continued military preparedness while the international situation remains threatening; but many other increases in Government expenditures are here to stay, regardless of international conditions.

A further expansion in the role of Government could make our economic system more rigid and less productive. But, looking ahead over the next few years, it is apparent that the size and character of Government operations will tend to maintain more stable levels of business and prices than was the case after World War I.

Better Control of Prices

The larger role of Government in the national economy has resulted in a better control over price advances during and after World War II than during and after the similar World War I period, despite the fact that basic inflationary factors arising from the recent war were much more serious.

The better price control is reflected in various price indices. The consumers' price index of the Bureau of Labor Statistics advanced 108 per cent from the 1914 average to June 1920. This same index has now risen 70 per

(Continued on page 20)

Association Activities*

By WELLER NOBLE Chairman of the Board of Directors, The National Fertilizer Association

AST year in my remarks before the Convention at Spring Lake Beach, I discussed at some length and in considerable detail the many activities of our Association, for the reason that a report by the elected head of our Association is expected at the annual June convention. This is very proper, for it is at our June convention that we take stock of the preceding year's activities and set policies for the ensuing year, all of which has to do with the adoption of a budget suitable for carrying out our contemplated program.

I do not intend to review activities prior to the past year, for my last year's discussion on this subject was printed in pamphlet form and copies are available at our office. I do wish, however, to make a report on some of the undertakings since last June:

Our Washington staff has been increased by the appointment of Dr. Malcolm H. McVickar as chief agronomist to take the place of the late H. R. Smalley. Dr. McVickar came to us from the Virginia Polytechnic Institute and Virginia Agricultural Experiment Station, where he held the position of agronomist. A native of Illinois and a graduate of the University of Illinois, he received his Doctor's degree at Ohio State University. After two years in that State, he went to the Virginia Station. He is one of the younger group of aggressive soil scientists and is settling into his new work in a manner that is most gratifying. We are all pleased to welcome Dr. McVickar as a member of the staff.

The first number of a quarter publication called *Pasture Progress* has been distributed to all members. As its name indicates, it is a review of some of the more important research and experimental work over the country, on forage crops and grass-land problems. It appears in printed form and takes the place of the formerly issued mimeographed bulletin called "Pasture Notes." We feel that this change in the publication is a decided forward step. Our purpose with this

new periodical is to keep it interesting, informative and current; any suggestions that will add to its value will be gratefully received.

A new color motion picture is in the throes of production. It will tell the story of the manufacture of fertilizer and it is contemplated that a premier showing will be made at the Atlanta convention in November. This should be a very splendid educational film and a valuable addition to our film library.

Our new leaflet "What's in a Bag of Fertilizer?" which discusses fully and attempts to clear up the filler controversy, has been widely distributed and continues to be quite popular.

Production Increases

Fertilizer consumption in the calendar year 1947 reached 15,039,000 tons (about one per cent more than the preceding year, but 102 per cent more than the average of the pre-war years (1935–1939). These figures do not include direct application consumption of raw phosphate rock, domestic basic slag, gypsum and certain other similar commodities. Such consumption would aggregate approximately 1,500,000 tons.

A significant fact, however, should be borne in mind-the average plant food content of the 1947 consumption of fertilizers was a little over 21 per cent compared with 19.1 per cent average in the five pre-war years. Hence the consumption of total plant food in 1947 was 112 per cent greater than in the pre-war period. This increased concentration is definitely a step in the right direction for, within the limits of special concentrated materials cost, higher analysis fertilizers cost the farmer less per pound of plant food than do lower analysis grades. It is my considered opinion that our industry, although progress toward higher grades is evident, has lagged considerably in this very important phase of our business.

Granted that there are obstacles to surmount, sales resistance to be met, and prejudices to overcome, We must not overlook the fact that our fertilizer surveys indicate that a substantial majority of farmers look to

^{*}As presented at the annual June N. F. A. Convention, White Sulphur Springs, West Virginia, June 22, 1948.

dealers and agents, rather than to other sources, for guidance and counsel in their entire fertilizer program. Each fertilizer company, it is assumed, is accountable for the education of its dealers and agents with respect to products sold; and therefore the responsibility for the type of fertilizer used rests to a great extent upon the company offering its products.

Higher analysis fertilizers, within limits, reduce plant food cost to the farmer and thereby make his operations more profitable. Therefore it is good business for all concerned to establish more concentrated grades wherever it is possible to replace some of our medium- and low-analysis fertilizers.

Conference with TVA

The Spring meeting of your Board of Directors was held at Florence, Alabama, in order to permit a joint meeting with the representatives of the Tennessee Valley Authority for the discussion of problems of common interest, and to afford members of the Board the opportunity of seeing TVA operations.

The principal topic of discussion between the two groups concerned the pattern adopted by TVA for marketing its fertilizer products, namely, distribution to cooperatives. The industry representatives very positively expressed the opinion that an agency of Government supported (at least, in part) by taxes, should not discriminate for or against any segment of industry . . . that cooperative organizations and proprietary firms should be afforded equal opportunity to purchase the Authority's products, just as is the case for all other materials used in the production of fertilizers.

At the time, the TVA spokesmen, after attempting to justify their position, agreed to give the matter consideration. Later, Chairman Clapp of TVA wrote President Lockwood repeating in some detail a description of their method of distribution, and implying at least that they saw no reason to change their procedure. At the same time he stated they would be glad to receive any specific suggestions from the industry. Mr. Lockwood replied that he felt it was not possible for the Association to suggest more than the broad principles to be desired, and that TVA must determine the details. He further expressed considerable doubt as to the effectiveness of the TVA provision that its products be used for direct application only, and not in mixtures, and of the obligation supposedly borne by the farmers to make accurate and detailed reports as to the results.

The final outcome of the conference is still to be determined, but at least a step forward has been made through the discussion of problems and the interchange of ideas.

Last year I discussed at length the effective efforts of our staff in Washington which through the years, kept freight rates for fertilizers at proper levels, thereby effecting very substantial savings. I stated then, and I repeat, this requires never-ending vigilance, for the task is a continuing one. This past year our staff has been particularly active in opposing unreasonable increases in freight rates and to some extent their efforts have been productive. On the whole, however, substantial increases have gone into effect since last June. These and other additional increased costs, such as labor and almost every other item that goes into the manufacture of mixed fertilizers, increase the per-unit plant food cost to the farmer, and as I have stated heretofore. this makes it all the more imperative that the per-unit cost be reduced as much as possible through production of higher analysis fer-

Budget Maintained

It is a pleasure to report that the affairs of our Association, under the guidance of our President Maurice Lockwood, have been conducted well within the budget for the fiscal year just ending.

The field of public relations and education is almost limitless and I am confident that an enlarged budget, permitting an accelerated effort, would bring about results that would warrant the expenditure.

I am also quite confident that funds allocated for dissemination of useful data have been well spent inasmuch as such data have in a substantial measure contributed to our farmers' knowledge and have materially broadened the use of fertilizer throughout the United States. This has, in my belief, been an important factor in the increased consumption of fertilizers, so noticeable of recent years.

Generally speaking, our industry at this, our 23rd annual convention is in position to render the best service in its history; and to say that our Association has made substantial contributions toward this accomplishment is a fair statement made without fear of contradiction.

The by-laws of our Association require an annual meeting in June and a fall meeting in October or November. We have been holding these conventions for a great many years, but I have often wondered what the answer would

Fiscal Year Tag Sales At All-Time High

Sales of fertilizer tax tags in 15 States reached a record high in the recently completed fiscal year, according to reports of State control officials to The National Fertilizer Association. For the year ended June 30, such sales were equivalent to 9,516,000 short tons; this represented an increase of nine per cent over the 8,722,000 tons reported for the 1946–47 fiscal year, when sales were at a record high, and 18 per cent over the 8,087,000 tons registered for the 1945–46 fiscal year. Compared with the five year average, 1935-36 through 1939–40, these sales were almost twice as great.

It is encouraging to the fertilizer industry to note that the recent trend on the part of the farmers toward purchasing their fertilizer early has continued. Formerly they purchased practically all of their fertilizer as they needed it, so the industry was faced with the problem of delivering almost all of its output in a few short months. In recent years the farmers, under the urging of the U. S. D. A. and in cooperation with the industry, have been buying some of their fertilizer early, storing it for use in their spring plantings.

N. F. A. 1949 Convention Dates

It has been announced that the 1949 annual convention of the National Fertilizer Association will be held at the Greenbrier, White Sulphur Springs, W. Va., on June 13, 14 and 15, 1949.

Reed and Thomas Receive N. C. Appointments

The North Carolina Board of Agriculture has announced the appointment of two experienced young agronomists to fill key positions in the Agricultural Department. They are Dr. J. Fielding Reed, professor of agronomy at N. C. State College, who has been named head of the department's soil-testing division, and Cecil D. Thomas, who has been promoted from the position of executive assistant to director of the test farms division.

A significant point in their selection is that both have the blessings of State College and North Carolina Experiment Station officials, indicating harmonious relationships between these institutions and the department.

Dr. Reed succeeds Dr. Ivan E. Miles, who recently resigned as head of the soil-testing division to accept a position as agronomist and soils specialist in his native Mississippi. His appointment is on a half-time basis under an arrangement by which he will continue some teaching and research duties at the college.

FERTILIZER TAX TAG SALES—Short Tons
COMPILED BY THE NATIONAL FERTILIZER ASSOCIATION

State	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48
Virginia	423,574	497,911	574,094	637,063	672,240	667,541
N. Carolina	1,292,655	1,384,789	1,466,472	1,544,779	1,653,069	1,606,422
S, Carolina	802,498	813,548	834,985	822,293	894,354	987,260
Georgia	988,191	1,062,629	1,079,056	1,131,587	1.111.314	1,132,434
Florida	624,602	794,600	813,940	985,653	970,230	843,730
Alabama	640,200	707,400	735,600	794,950	778,700	921,666
Tennessee	214,723	246,362	295,463	284,336	337,037	424,200
Arkansas	153,583	139,873	131,250	145,050	188,530	209,875
Louisiana	-181,443	205,110	209,701	243,535	250,587	235,027
Texas	153,881	193,976	215,218	288,825	381,877	448,437
Oklahoma	16,494	17,586	25,969	38,958	73,237	114,943
Total South	5,491,844	6,063,784	6,381,748	6,917,029	7,311,175	7,591,535
Indiana	431,714	474,084	498,081	610,539	718,654	881,831
Kentucky	144,952	230,872	282,217	294,312	348,674	558,129
Missouri	78,783	127,065	161,333	229,779	262,639	352,664
Kansas	8,413	36,535	35,885	35,507	80,899	132,200
Total Midwest	663,862	868,556	977,516	1,170,137	1,410,866	1,924,824
Grand Total	6,155,706	6,932,340	7,359,264	8,087,166	8,722,041	9,516,359

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PIONEER JOURNAL OF THE FERTILIZER INDUSTRY

A. A. Ware, Editor K. F. Ware, Advertising Manager

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Phosphate Research Committee Reports Satisfactory Progress

Thirty companies in the fertilizer industry have so far contributed to the research fund of the industry's Phosphate Research Committee, according to its Chairman, V. Sauchelli. The total amount collected was \$19,600. The fund is being used exclusively to sponsor joint industry-experimental station research projects employing the radioactive tracer technique for the solution of fundamental problems in soil-plant-fertilizer relationships.

The Committee is cooperating with four state agricultural experiment stations which were selected more or less on a regional basis so as to include the major soil types of the country. The Cornell University and North Carolina Agricultural Experiment Stations are giving special attention to problems concerned with the acid soils of the eastern United States. The Iowa Station is emphasizing studies related to organic phosphorus in prairie soils. The Colorado Station is particularly interested in problems of calcareous These Stations will have a closely integrated program that will cover the major phases of phosphate fertilization in the most representative agricultural soils of the country. The U.S. Department of Agriculture, Bureau of Plant Industry is closely cooperating on problems of fertilizer technology with the state research groups through its skilled technicians in the Division of Soils and Fer-

The administrative leadership of the projects is being carried by Dr. Ralph W. Cummings for the North Carolina Station, Dr. Michael Peech for the Cornell Station, Dr. W. H. Pierre for the Iowa Station, Robert Gardner for the Colorado Station and Dr. F. W. Parker for the Bureau of Plant Industry.

Extensive field tests in each region of the country are underway. Using radioactive phosphorus atoms or "tracers," these scientists are seeking a more accurate knowledge of the ways and means of phosphorus fertilization of farm crops. The preliminary results obtained during the first year of this joint industry-government project justify the high hopes for more remarkable results this second year. Nationwide interest has been aroused in this work. It is expected that the results will definitely influence the placement of fertilizer to get a more efficient utilization of the plant nutrients applied and this should lead to better quality and higher yields.

The administrative committee of the indus-

try has as members: J. E. Totman, Northern Chemical Industries Inc.; F. W. Darner, U. S. Phosphoric Products; F. O. Case, Anaconda Copper Mining Co. The technical committee of the industry comprises: H. B. Siems, Swift and Co.; R. R. Hull, I. P. Thomas and Son Co.; F. E. Boyd, Virginia-Carolina Chemical Co.; H. E. Hendricks, Knoxville Fertilizer Co.; D. S. Fink, American Cyanamid Co.; J. A. Chucka, Eastern States Farmers' Exchange; D. D. Long, International Minerals & Chemical Corp. V. Sauchelli, The Davison Chemical Corporation, is general chairman.

The contributors to the Research Fund are

as follows:

American Cyanamid Company, American Smelting & Refining Co., Anaconda Copper Mining Co., Armour Fertilizer Works, Baugh & Sons Co., Consolidated Rendering Co., Coop. G. L. F. Soil Bldg. Serv., Inc., Davison Chemical Corporation, Del-Mar-Va Peninsula Fertilizer Assn., Eastern States Farmers' Exchange, Georgia Fertilizer Co., International Minerals & Chemical Corp., Mutual Fertilizer Co., Miller Chemical & Fertilizer Corp., Mutual Fertilizer Co., Naco Fertilizer Co., Northern Chemical Industries, Inc., Planters Fertilizer & Phosphate Co., Reading Bone Fertilizer Co., Robertson Chemical Co., Smith-Douglass Co., Inc., Southern Acid & Sulphur Co., Southern Fertilizer & Chemical Corp., Swift & Co., Tennessee Corp., Texas Gulf Sulphur Co., I. P. Thomas & Son Co., F. W. Tunnell & Co., Valliant Fertilizer Co., and Virginia-Carolina Chemical Corp.

Phillips Petroleum Forms Chemical Company

The Phillips Petroleum Company has expanded its chemical activities through the formation of a wholly-owned subsidiary, the Phillips Chemical Company. Officers of the new company are: Frank Phillips, chairman; K. S. Adams, president; Ross W. Thomas, executive vice president; Paul Endacott, Don Emery, G. G. Oberfell and R. C. Jopling, vice presidents. G. W. McCullough has been appointed vice president and general manager.

As a nucleus of the new program, Phillips Chemical Company has leased on a long term basis the Cactus Ordnance Works at Etter in th Texas Panhandle and will also build a new ammonium nitrate plant at Etter. Cactus Ordnance is one of the largest ammonia plants in the world and will be used by the Company to produce ammonia for nitrogenous fertilizers. It is expected that present plant capacity will be doubled from approximately

70,000 tons to more than 140,000 tons. Under the lease agreement, the United States Government may purchase products from this plant for its foreign relief export fertilizer program until June 30, 1952. The Company plans to divert the production of these facilities to the relief of the domestic fertilizer shortage as rapidly as the Government's foreign program is reduced.

The Company's plans for the future also include the acquisition of a large site on the ship channel near Houston, Texas, where a plant will be built for the manufacture of sulphate of ammonia. This site is of sufficient size to permit the addition of the several other chemical plants which are planned.

More Fertilizer, More Beef

When phosphorus and nitrogen fertilizers were applied to regrassed land in the spring of 1947, beef production the following summer was increased about two and one-third times, according to H. A. Daniel, H. M. Elwell, and M. B. Cox, workers at the Guthrie, Oklahoma Experiment station.

On regrassed, eroded land, 36 pounds of beef per acre was produced during summer grazing. However, when fertilizer applications of 300 pounds of 20 per cent superphosphate and approximately 32 pounds of nitrogen were applied to the regrassed land in the spring, beef production was increased to 86 pounds per acre, a gain of 50 pounds of beef per acre.

"The establishment and improvement of pastures on unused land is practical for the average landowner. Through proper management much of the unused land in Oklahoma could be converted into useful pastures; and, if grazed conservatively, such land will give satisfactory returns," concluded these Oklahoma researchers.

Bureau of Mines Issues Ammonium Nitrate Circular

"Ammonium Nitrate: Its Properties and Fire Explosion Hazards" is the title of an Information Circular No. 7463, recently issued by the U. S. Bureau of Mines. It presents a brief summary of published scientific information on this material, including its manufacture, preparation as a fertilizer, physical properties, decomposition and oxidizing properties, sontaneous heating, detonation, record of fires and explosions. A copy may be obtained without charge from the Bureau of Mines, Publications Section, 4800 Forbes St., Pittsburgh 13, Pa.

June Tag Sales

Sales of fertilizer tax tags during June, amounting to 384,000 equivalent short tons, increased 16 per cent over the 332,000 tons reported for a year ago and 28 per cent over two years ago. Although the tonnage reported for June was the lowest for any month of the current year, it was the highest on record for any June.

Sales during June in the 11 Southern States, of 285,000 tons, increased ten per cent over last year. Seven of the States reported decreases from a year ago, but the increases in the other four States, particularly Alabama, Tennessee and Arkansas, more than offset these decreases. The 99,000 tons registered for the four Midwestern States represented a 37 per cent increase over last June; two of the States, Indiana and Kansas, reported gains, while Kentucky and Missouri showed losses.

Cumulative sales in the 15 reporting States for the first half of this year totaled 6,249,000 equivalent tons, an increase of 13 per cent over the same period last year. In the 11 Southern States sales rose nine per cent, with only two States indicating decreases. All four of the Midwestern States reported gains over the first half of 1947, with the total increase amounting to 38 per cent.

Missouri Company Changes Name

The name of the Missouri Chemical Company, fertilizer manufacturers of Joplin, Missouri, has been changed to Thurston Chemical Company, according to a recent announcement by the company. The brand name of their products has also been changed from "Merco Money Maker Fertilizer" to "Bem Brand Fertilizer." The general offices of the company will continue at Joplin, with factories in that city and in Tulsa, Oklahoma.

FERTILIZER TAX TAG SALES
COMPILED BY THE NATIONAL FERTILIZER ASSOCIATION

		JUNE			J	ANUARY-JU	NE
State	1948 Tons	1947 Tons	1946 Tons	% of 1947	1948 Tons	1947 Tons	1946 Tons
Virginia	16,844	25,013	15,420	102	442,359	432,499	429,696
N. Carolina	32,017	61,425	28,117	96	1,086,384	1,126,635	1,180,148
S. Carolina	28,400	31,048	16,553	107	647,668	604,247	653,443
Georgia	25,845	32,947	35,850	105	919,916	879,477	903,848
Florida	21,210	46,600	62,240	93	399,849	428,110	518,953
Alabama	68,260	29,000	39,600	139	775,214	557,800	677,750
Tennessee	46,061	8,565	19,763	130	305,939	235,427	229,65
Arkansas	35,292	2,230	4,000	123	164,506	133,830	116,550
Louisiana	2,290	8,900	2,805	105	128,957	122,630	130,31
Texas	7.379	13,641	12,341	123	257,763	210,017	205,082
Oklahoma	1,740	500	5,200	169	75,486	44,792	30,29
Total South	285.338	259,869	241,889	109	5,204,041	4.775,464	5,075,734
Indiana	70,026	45,449	37,779	125	408,701	327,021	290,733
Kentucky	9,965	11,100	9,140	137	342,732	250,154	230,361
Missouri	13,317	13,904	9,611	166	235,651	141,661	159,753
Kansas	5,265	1,760	2,620	152	57,520	37,773	18,227
Total Midwest	98,573	72,213	59,150	138	1,044,604	756,609	699,074
Grand Total	383,911	332,082	301,039	113	6,248,645	5,532,073	5,774,808

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FERTILIZER MATERIALS MARKET

NEW YORK

Sulphate of Ammonia Prices Set but Supplies Not Likely to Meet Demand. Higher Price for Domestic Nitrate of Soda. Superphosphate Situation Satisfactory. Potash Strike Settled. Feed Organics Show Better Demand with Some Price Increases

Exclusive Correspondence to "The American Fertilizer"

NEW YORK, July 21, 1948.

Sulphate of Ammonia

With most of the producers having named their new prices, buyers knew about how they stood as far as supplies for the coming year. Some buyers were cut in the amount of sulphate they were to receive and a short position is again looked for by some buyers. Most producers have named a price of \$45.00 per ton, f.o.b. shipping points.

Nitrate of Soda

Domestic producers advanced their price in line with other nitrogen compounds and the demand continued good form all directions.

Ammonium Nitrate

Buyers, particularly in new areas in the mid-west, were eagerly seeking supplies of this material and producers are doing their best to stretch their available supplies among their various customers.

Nitrogenous Tankage

Current prices remained at \$3.50 to \$3.70 (\$4.25 to \$4.49 per unit N) depending on shipping point but some producers reported being sold out for nearby positions.

Castor Pomace

Producers were not offering as their present production is under contract and some buyers were trying to buy for forward position with no offerings noted. The market remained firm.

Organics

Organic ammoniates presented a firmer touch to the market, due to the better demand from the feed trade. Offerings of tankage and blood were picked us as they came on the market with last sales of tankage at \$7.00 per unit of ammonia (\$8.51 per unit N) and blood at \$6.75 per unit of ammonia (\$8.20 per unit N), f.o.b. Eastern shipping

points. Demand for soybean meal continued at about \$88.50 per ton, f.o.b. Decatur, Ill., but new crop meal for fall delivery could probably be bought cheaper. Cottonseed meal for fall shipment was being offered at around \$71.00 per ton, f.o.b. Memphis.

Fish Meal

With a good part of the current season's catch already contracted for, some of the fish factories withdrew from the market, which caused the market to firm up somewhat. Some of the feed buyers were showing more interest, with some sales of fish scrap reported at \$110.00 per ton, f.o.b. fish factories.

Bone Meal

A good demand continued for this material and some manufacturers feel their production will be off slightly the coming year and there will be less bone meal to go around. The demand from the feed trade continued good.

Hoof Meal

Some additional interest was noted from several large industrial buyers and very little material was being offered for nearby shipments.

Superphosphate

Little change was noted in the price of this material and most buyers had already contracted for their estimated requirements. Prices in most cases were about the same. Triple superphosphate was still in demand with supply limited.

Potash

The strike of one of the leading producers was recently settled but a considerable tonnage of potash was lost due to the shutdown, which is not expected to be made up. It was reported another cargo of imported potash was on the way to this country but this was not confirmed in the trade.

PHILADELPHIA

Chemical Nitrogen Supply Still Uncertain. Advance in Domestic Nitrate of Soda Price Reported. Month-old Potash Strike Settled

Exclusive Correspondence to "The American Ferillizer"

PHILADELPHIA, July 19, 1948.

With the new season now under way, there still exists great uncertainty as to the chemical nitrogen supply. The demand is very active for prompt, as well as future, and supplies are scant. On the other hand, while organics are quoted nominally stronger, they are in ample supply and can be bought considerably under published prices. It is expected that imports of nitrogen will be in excess of last year, but still insufficient to meet requirements.

Sulphate of Ammonia.—Effects of the recent work stoppage are still apparent, and the supply is totally inadequate to meet the demand.

Nitrate of Soda.—The domestic price has been advanced \$5.00 per ton and the demand for both domestic and imported is ahead of the present supply.

Ammonium Nitrate.—Inquiries continue, with no offerings to satisfy them. Demand is both for prompt and future delivery.

Castor Pomace.—Production continues well under contract, with practically no demand at present.

Blood, Tankage, Bone.—While published quotations would indicate a very strong market with blood and tankage at \$6.85 (\$8.32 per unit N) in the East, and \$7.25 (\$8.82 per unit N) in the West, purchases are possible at substantially lower prices. Fertilizer bone meal is listed at \$50.00 to \$55.00 per ton, but is not too plentiful. Hoof meal is nominal at \$7.00 per unit of ammonia (\$8.51 per unit N) in the West.

Fish Scrap.—Market has slipped back somewhat with scrap at \$100.00, and meal \$115.00 to \$120.00 per ton, depending on the grade.

Phosphate Rock.—While production has increased, the supply is said to be still insufficient to meet requirements.

Superphosphate.—Triple grade is higher at 83 cents in Florida, and the demand is for much more than can be supplied. Normal grade is priced at 76½ cents to 78 cents per unit A. P. A. and numerous contracts are reported to have been arranged for movement during the ensuing year.

Potash.—The strike in New Mexico has been settled but a full month's production

has been lost. It is rumored that a cargo of about 6,000 tons is expected shortly along the Atlantic seaborad, but confirmation is lacking.

CHICAGO

Little Activity in Organics Market. Prices Firm and Production Lower than Normal

Exclusive Correspondence to "The American Fertilizer"

CHICAGO, July 19, 1948.

There has not been very much activity in in the ammoniates market in the Chicago area for the past couple of weeks. Prices remain firm and, while movement is manitained at a normal basis, there is no aggressive buying demand. Due to the high cost of livestock, slaughter is light except among the big packers; consequently production is low.



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Wet rendered tankage is moving at \$7.25 to \$7.50 per unit of ammonia (\$8.82 to \$9.12 per unit N) for high testing material, while low test product is 50 cents to \$1.00 per unit higher. Blood is unchanged at \$7.25 to \$7.50 per unit of ammonia (\$8.82 to \$9.12 per unit N). Dry rendered tankage is unchanged at an average price of \$1.70 per unit of protein with variations of five cents per unit, depending upon location and quality of product offered. Digester tankage is moving moderately at \$100 to \$105 per ton and meat scraps \$5.00 per ton lower. Steamed tankage is moving per ton lower. Steamed bone meal is unchanged at \$60 to \$65 per ton, and raw bone meal \$5.00 to \$10.00 per ton lower.

CHARLESTON

Nitrogen and Potash Short of Demand. Organics Prices Above Fertilizer Levels. Some Advance in Superphosphate Prices

Exclusive Correspondence to "The American Fertilizer"

CHARLESTON, July 19, 1948.

Nitrogen and potash continue short of demand with superphosphate in easier supply position than last year.

Organics.—Interest in organics is primarily from the feed trade for blood and tankage. Fertilizer manufacturers show slack interest in organics due to the high prevailing prices. Domestic nitrogenous is offered at \$3.25 to \$4.00 (\$3.95 to \$4.86 per unit N) depending on the shipping period and the production point. Little activity is noted in European and South American organics.

Castor Pomace.—No offerings are being made at this time and the market is nominally \$27.50 per ton in bags, f.o.b. eastern shipping

Dried Ground Blood.—Few offerings are in the market and prices are around \$7.25 to \$7.50 per unit of ammonia (8.82 to \$9.12 per unit N), f.o.b. production points.

Nitrate of Soda.—The market remains firm in spite of recent advance in price. Demand continues in excess of supply.

Potash.—It is now reported that the strike at one of the large production plants has been terminated, but it is not expected that the approximately thirty days' production loss can be made up.

Phosphate Rock.—The market remains tight as the recent increased production is partly being exported, and the balance being taken up by active domestic demand.

Superphosphate.—At prices averaging slightly above the previous season's prices, a considerable tonnage of superphosphate has been contracted for. Demand continues even.

Sulphate of Ammonia.—Demand continues in excess of supply and producers' prices, f.o.b. the ovens are at \$40.00 per ton in bulk, but actually prices in effect at time of shipment will govern.

Ammonium Nitrate.—The market continues tight with demand in excess of supply. No recent change in price has been noted.

Bemis Establishes Group Health and Accident Insurance Plan

The establishment of group health and accident insurance for hourly rated employees of Bemis Bro. Bag Co. has been announced by President F. G. Bemis and has already gone into effect in all Bemis plants. Employee participation in this insurance plan is averaging more than 95 per cent of those eligible, and three Bemis plants have reported 100 per cent participation. The insurance is being administered in accordance with a contract issued by the Aetna Life Insurance Company.

This group health and accident insurance provides a weekly benefit while a participating Bemis employee is prevented from working as a result of a non-occupational accident or

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sickness for which benefits are not payable under a Workmen's Compensation Law. An employee's hourly pay rate determines the cost of the insurance to him, and the company contributes a substantial portion of the total cost of the insurance.

A life insurance plan for Bemis employees has been in effect for some time, with all costs being paid by the company.

May Superphosphate

Production of superphosphate of all kinds during May reached a total of 978,400 tons (basis 18 per cent A. P. A.), according to the figures of the U. S. Bureau of Census. This is the second largest output on record, being exceeded only by the 1,032,000 tons produced in March, 1948. The tonnage used in producing plants and shipped to other mixers amounted to 835,000 tons, which increased stocks on hand at the end of May to 1,117,000 tons.

For the first five months of the year, production totaled 4,817,000 tons, an increase of 11 per cent over the same period of 1947.

	Normal 18%	Concentrated 45%	Base Goods 18%
Production	Tons	Tons	Tons
May, 1948	874,867	39,792	4,086
April, 1948	868,848	39,208	7,552
May, 1947	806,133	33,151	5,761
Shipments and used in reporting plants	n	,	,
May, 1948	716,031	45,741	4,806
April, 1948	911,669	36,990	10,201
May, 1947	753,277	30,626	4.602
Stocks on hand		,	
May 31, 1948	965,592	59,682	2,086
April 30, 1948	798,366	65,642	3,009
May 31, 1947	534,241	57,524	3,184

North Carolina Grades for 1948-49

Following a conference attended by agricultural department officers and representatives of fertilizer manufacturers, the North Carolina Board of Agriculture has announced the list of 24 official fertilizer grades which may

be sold in that state during the 1948-49 fertilizer year.

Two of the 1947–48 grades, 3–8–5 and 4–8–8, were dropped from the list on the recommendation of both the industry and the agronomists. To take the place of the 4–8–8, a 5–10–10 grade was added, which gave a more concentrated fertilizer in the same plant food ratio.

The 1948-49 list is as follows:

For tobacco only—2–10–6, 3–9–6, 4–9–3, 6–9–3, 5–5–20 (top - dresser)

For tobacco and general crops—3–9–9, 4–12–8,

For general crops—0–12–12, 0–10–20, 0–9–27. 0–14–7, 2–12–12, 3–9–12, 3–12–6, 4–10–6, 4–12–4, 5–10–5, 5–10–10, 6–6–12, 6–8–6, 7–7–7, 10–6–4, 14–0–14, (top dresser), 10–0–30 (top dresser).

SOME ECONOMIC CONSIDERATIONS

(Continued from page 8)

cent from its 1939 average. The Bureau's general wholesale price index rose 145 per cent from the 1914 average to June 1920. This index has now risen 114 per cent from its 1939 average.

The reason for the lesser rise in prices during the present period than during and after World War I is found entirely in the prices of manufactured goods and other non-agricultural commodities. The prices of farm products, which have been relatively free



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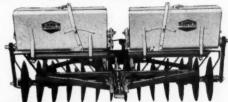
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from controls, have advanced more since 1939 than they did between 1914 and 1920. The rise from 1914 to 1920 was 135 per cent, as compared with a rise of 196 per cent between 1939 and now.

We well remember that the downturn in farm prices was one of the first signals of the 1920 break, and many thought last February that a turn was again coming. Whatever adjustment may come, it does not seem likely to me that the severe experience of 1920 will be repeated.

Larger Money Supply

One of the primary causes of the rise in prices during each period was the great increase in the money supply which occurred in each case. The increase has been substantially greater in the recent war period—225 per cent from 1939 to 1948, as compared with an increase of 104 per cent from 1914 to 1920. But an offsetting factor has been the much greater increase in supplies of both industrial and agricultural products during the more recent period.

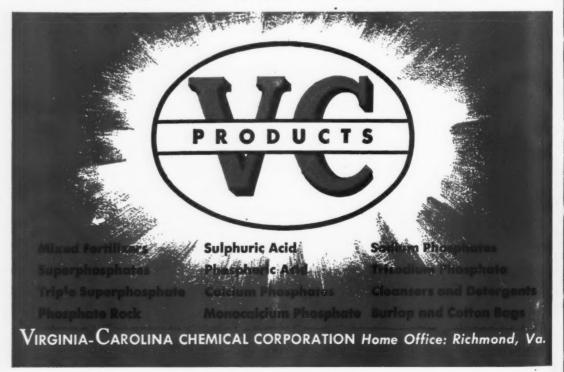
In both wars the increase in money supply was brought about partly as a result of financing the Government deficit, and partly as a result of financing an industrial expanison.

But there is a big difference in the proportions. The expansion of the war industries in World War I was largely financed by the issuance of their own securities and by their now borrowing; whereas in World War II, the expansion was financed principally by the Government. As a consequence, a much larger proportion of the money supply in 1920 was backed by the private loans and investments of banks, and was, therefore, more vulnerable than is the case today.

In 1920, United States securities accounted for only about 11 per cent of the total loans and investments of all member banks; while today they account for nearly 60 per cent. This means that the money supply—and the whole economy—is much less vulnerable today to the type of loan contraction that swept the country in 1920 and 1921.

Strong Position of Farm Finances

In yet another respect, the situation is now vastly different from that in 1920. While the prices of farm real estate have advanced even more rapidly during the past few years than during and after World War I—by 102 per cent from 1939 to 1948, as compared with 75 per cent form 1912 to 1920—this rise has been very different in two particulars. First,



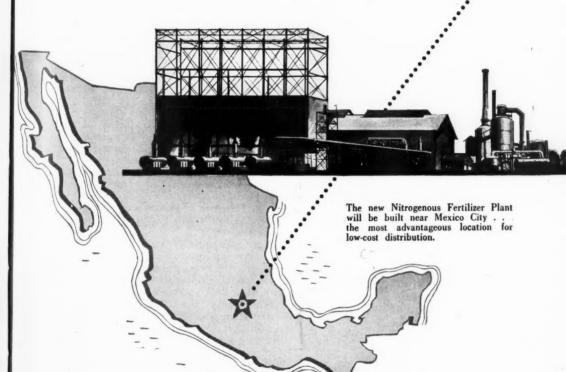
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owing in a steady stream from a
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pe Contact Sulfuric Acid Plant,
and Ammonium Sulfate Plant.
be basic raw material will be natulgas which formerly went to waste.

This huge plant, to be partially financed under a loan from the Export-Import Bank to National Financeria S. A., will be built for operation by Guanos y Fertilizantes S. A., the leading fertilizer manufacturer in Mexico. It will function continuously . . . and will be complete in every respect. It will include complete facilities for the production of power and process steam, electrical generating equipment,

deep well water pumps within the works, and all general facilities.

Again . . . Chemico's knowledge and experience in this field has been utilized. In Egypt, India, Mexico . . . in strategic places the world over . . . plants designed and built by Chemico help meet the world's great need for fertilizer as well as for sulfuric acid, synthetic ammonia, methanol and other heavy chemicals.

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Chemico Plants are profitable investments the World War I rise came on top of a protracted rise in the previous decade. The World War II rise, on the other hand, has been largely a recovery from the depressed market of the 1930's. Second, and perhaps more important, the recent rise in farm real estate has not been financed by an expansion in borrowing. The World War I rise was accompanied by an increase of about 160 per cent in farm mortgage debt, while the World War II rise has been accompanied by a decrease of about 30 per cent in such debt.

A favorable factor of great importance in our present economy is the total of liquid assets held by individuals, aggregating approximately 200 billion dollars at the present time. Of this amount, nearly 150 billion dollars has been accumulated during the past eight years. Individual holdings of United States Government securities have been increased to a present total of 66 billion dollars.

Of particular interest to the fertilizer industry is the improved position of agriculture. At the end of 1940, the balance sheet of agriculture shows assets of \$53,800,000,000, with liabilities of \$10,000,000,000, leaving net equities of \$43,800,000,000. At the end of 1947, assets were more than doubled, while liabilities declined. Proprietors' equities increased from the \$43,800,000,000 to \$103,000,000,000 during the seven-year period.

Against the value of all farm lands and buildings of \$58,500,000,000 at the end of 1947, farmers owed noly \$4\frac{3}{4}\$ billions, or less than 8 per cent. At the same time, the farmers had in cash, Government bonds, and other investments more than \$22 billion, with more than \$30 billion additional in livestock, machinery, crops, etc., or a total of more than \$52 billion against which their total current liabilities were only \$3 billion, or a ratio of

non-real estate assets against non-real estate loans of 16 to 1.

(To be concluded in the next issue)

ASSOCIATION ACTIVITIES

(Continued from page 10)

be if a questionnaire were sent to everyone, members and guests, asking why they attend a convention. I suspect the answers would all be different, but, in the main, the majority reasons would be similar.

Why a Convention?

I should like to give you my idea of Why a Convention? and what it means to me. Our convention accomplishes, substantially, three objectives:

1st. A report on the activities of the Association; the election of its officers; and the passing of the budget to cover our activities for the ensuing year.

2nd. The development of programs stressing education and progress with emphasis on agriculture.

3rd. The most important and most gratifying, the promotion of friendships.

Each of these objectives needs elaboration, for my viewpoint, as stated heretofore, will probably not coincide in its entirety with that of anyone present; but in the main, I am firmly convinced we can all find some common ground in the thoughts I express.

Therefore, on the first objective, I make the observation that we would not have an Association if we did not hold conventions.

Many of our members are not in close contact with our Washington office and are only vaguely familiar with its many activities, in

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spite of all of the reports forwarded to our members. A large group would not even become acquainted with our staff, if we held no convention.

A report on the activities of the staff, which are legion; the adoption of a budget for the ensuing year; the development of a closer relationship between the staff and industry members all promote confidence, goodwill and renewed enthusiasm. Of particular importance, the convention permits all members of industry a participation in the conduct of the affairs of the Association.

The second objective, that of the educational portion of our programs, is so well known to you all, it would seem unnecessary to elaborate on this phase. Our speakers have always been outstanding scientists in chemistry and agriculture, men representing our agricultural journals, and practical businessmen.

Some of the topics covered by these speakers in the past have been: Soil and leaf and petiole analysis with relation to plant needs; Soil deficiencies and the relation to human and animal health; Crop rotation and its importance to our economy; New products and new applications, such as organic compounds and applying anhydrous ammonia direct to the soil; Trends in business, selling and credit problems and other subjects pertinent and applicable to our industry.

Without exception, at all of our conventions, knowledge I have gained from this part of our program has been of great value to me and warranted the time and effort given in attending, and I know others share my view.

My only regret, as I have stated previously, is that salesmen and agents, of which there are many thousands, do not have the equal opportunity of profiting by this educational phase of our conventions, because of lack of hotel accommodations. I firmly believe that regional agents' meetings would be of great benefit from this viewpoint.

The 3rd objective, from my point of view, is the most important, and is part of our convention in which everyone can participate, and to the extent that we each participate, will we be individually rewarded. The interchange of ideas in business sessions and the entertainment features, afford an opportunity for us to become acquainted, and usually, such acquaintance ripens into friendships which endure through our business life. I hold as priceless the many friendships I have made at our conventions in past years, and if nothing else had been gained from these meetings, I have been more than amply re-

paid for any effort I have made on behalf of our industry. But here again, we must not be complacent. It was Johnson, I believe who said, "If a man does not make new acquaintances as he advances through life, he will soon find himself left alone. A man, sir, should keep his friendships in constant repair."

This brings me to my concluding remarks. Last year and the year before, I was honored by being elected to the office of Chairman of the Board of Directors. These have been two fruitful and happy years for me, working with our splendid staff in Washington and our fine Board of Directors.

My term of office expires at the conclusion of this convention; and as was probably the case of those who have preceded me in this office, I have a feeling that I might and should have made a greater contribution to our Association.

I presume, however, one would have the same conviction, if his entire time were devoted to the task, for there is so much to be accomplished.

Your Board of Directors have given so freely of their time in the administration of our Association, that I cannot refrain from asking them to stand so that you may acknowledge your appreciation of their unselfish work.

It has been a privilege and an honor to have served with these men, and thus be able to contribute, even in a small measure, to the industry with which I have been associated practically all of my business life.

Finally, in thanking you for your cooperation for the past two years, I desire to close with one final request, which is, that each member, in order to strengthen our Association, will undertake the very definite obligation of securing a new member during the ensuing year, so that our Association will continue to expand and increase its service to agriculture and industry.

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Huber & Company, New York City
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"The American Fertilizer"

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